Hemet/March Relocation Review
Aviation Safety and Technical Analysis

The primary concern of any comparative analysis of the aviation issues surrounding the decision to move the CDF air base operations from Hemet-Ryan Airport to the March Airfield must consider the safety and security of the pilots, airbase personnel, aircraft and the public.

With safety as the primary consideration, the CDF Aviation Management Unit (AMU) has reviewed the quantitative data available regarding airspace, weather, airfield infrastructure, and security at both locations and has concluded that March has numerous advantages as a CDF air attack base. This decision is based upon current conditions as they exist today, not on anticipated approvals, funding or construction by government entities. An assessment cannot be made based upon anticipated improvements. Problems with either base could be mitigated given more time and a secure, committed funding source. At this point, the existing infrastructure favors March.

Airspace

One determinant factor favoring March is that it is a Class-C controlled airspace and has a control tower with Airport Surveillance Radar (ASR**)** that surrounds the March airfield. In contrast Hemet-Ryan is an uncontrolled airport which is overlaid by Class-E controlled airspace that begins at 700 feet above the airport. Operations in a controlled airspace, especially at an airport with a tower are considered much safer (attachment). The majority of mid-air accidents occur within five miles of an airport and generally during take-off and landing. Ramona airport, an uncontrolled airport, experienced a fatal mid-air collision several years ago which involved two federal fire fighting aircraft operating on the same radio frequencies. Ramona added a tower to the field which has been in operation since December 2003.

Although CDF has received anecdotal information that aerial fire fighting operations at controlled airfields have the potential to slow the pace of response and thus contribute to escapes, AMU staff could not quantify this information. The staff asserts that the added protection of controlled airspace area is essential to safe operations, especially considering the increased level of general and commercial air traffic in the Southern California planned for the future. Currently there are over 80,000 flight operations (takeoffs, landings, low approaches) at Hemet-Ryan compared to 33,500 at March in 2004.

Because March is in a controlled airspace with ASR it has the ability to allow landings and departures under Special Visual Flight Rules (VFR). This allows fire fighting aircraft to safely depart and land when visibility is less than the three miles required for VFR but greater than one mile. Maintaining visibility in and around high traffic areas such as an airport is a significant safety factor and ASR -- even on VFR days -- reduces the risks of airspace incursions and mid-air accidents.

The Aviation Management Unit staff also is concerned about the glider port operations that continue on the parallel runway at Hemet-Ryan. Glider operations often are conducted without radio communication with other traffic at the airport. Frequently glider takeoffs and landings go unannounced on the radio by aircraft flying on this runway. Glider traffic also uses the hills just northwest of the airport for convection lift and conflicts with the aircraft traffic arriving and departing to the north. Officials with the

Economic Development Agency of Riverside County have said this situation will continue until 2010. The Aviation Management staff asserts that this is an unsafe situation which has been ignored at Hemet-Ryan for sometime.

Airfield Infrastructure and Support

Runway length and width are important factors in determining the risk associated with a particular airport, especially when operating aircraft at maximum gross weights on hot days, which CDF does routinely during fire season. It is obvious that March has the longer and wider of the two runways at 13,300 feet in length and 200 feet width versus Hemet-Ryan at 4,314 long and 100 feet wide. In fact of all the aviation facilities that CDF utilizes, Hemet-Ryan has the second shortest runway. March is one of the longest runways on the West Coast and the longest in Southern California. In planning for future operations, the Aviation Management Unit staff -- using USFS standards -- has established a minimum safe runway length of 6,000 feet for tanker operations. This minimum length will also open the airfield to larger air tankers from the USFS and provide closer air support to fires in the local area. While it is possible to lengthen Hemet, the time period for project approval, construction and completion will restrict use and access

Taxiways and ramp space, although not major issues at either airfield, can be significant safety problems if overcrowding occurs. It should be noted that March has wider taxiways and larger usable ramp space. Hemet-Ryan is limited on ramp space and narrower taxiways. Maneuvering into and out of the loading pits at Hemet-Ryan is tight especially during large fire operations with multiple air tankers loading and taxiing at the same time.

On site airport crash and rescue equipment with trained personnel is available currently at March; none is available at Hemet-Ryan. Because CDF aircraft are not immune to emergencies, the department desires the availability of on-site crash and rescue equipment -- with appropriately trained personnel -- during operations to meet all aircraft emergencies. In the past CDF pilots have opted to use March for emergency landings because of the limited crash rescue services and runway length at Hemet-Ryan. This was the case circa 1980 when Shelly Knuteson had a gear-up landing at March Air Base in an ST-A tanker because Hemet's runway was too short and lacked crash rescue equipment and personnel. An on-site crash rescue unit at Hemet is not planned at this time.

Weather

A contributing factor to safe air operations is the weather at and surrounding an airport. There has been considerable discussion regarding which airfield has the best weather for flight operations. The generally accepted contention by base personnel was that Hemet experienced less fog and better visibility because of its location farther to the east. This contention was countered by other casual observers who say the opposite was true. The Aviation Management Unit staff made every effort to quantify the weather data and in doing so relied on FAA and military recorded weather observations from both March and Hemet-Ryan. After reviewing the weather data provided by March Flight Operations and the available automated data from the Hemet-Ryan Automated Weather Observing System (AWOS-3) for 2004 (attached), it was determined that the number of

IFR weather days versus the number of VFR clear days was virtually identical with only a 2% difference favoring March.

Security

CDF operates federally owned aircraft acquired under the Federal Excess Personal Property (FEPP) program administered by the U.S. Forest Service (USFS). Under recently published Homeland Security guidelines the USFS requires operators of federal aircraft to comply with more stringent airport and aircraft security measures (attached). If CDF fails to address these security requirements, it may result in the loss of these assets.

March, because of its military and homeland security mission, currently meets or exceeds USFS airport security requirement while Hemet-Ryan does not. With regard to the minimum standards set by the USFS, of major concern is the access to the flight line by unauthorized personnel. Although Hemet-Ryan is currently addressing this issue with some limited security fencing, there will continue to be unobstructed access from multiple routes to the CDF ramp for an indefinite period. An additional cost to CDF at Hemet is to construct and maintain required security which is already available at March at no extra cost.

Department of Homeland Security guidelines favor the higher level of security provided at March. Immediately after September 11, 2001, the CDF aerial firefighting fleet for the Southern Region of the state was moved to March to safeguard it due to elevated security as dictated by the federal government. The fleet was comprised of four S2-T air tankers, two OV-10 air attack aircraft and one Super Huey helicopter. March is an approved base for use under heightened security and provides a higher level of security that Hemet cannot equal. If the CDF aircraft remains at Hemet, there is no assurance that it will remain in the county at the time of a national emergency or heightened security alert. If March was a CDF Attack Base, not only would the CDF aircraft stay in the county, but they would continue to be operational.

CDF Airbase Development Criteria

Security

Must meet Federal Guidelines for Federal Excess aircraft

Infrastructure

Runway:

Length	6,000 feet
Width	100 feet
Gradient	less than 1.0%
Crown	2%
Load	S60, 000 D 130,000

Taxi ways capable of supporting S60,000 and D 130,000

Surface must be in good condition no FOD

Retardant Pits

4 to 6 pull through concrete pits 50 feet wide x 100 feet long
Spaced at 153 feet minimum on center
90 or 45 degree orientation to taxi way

Parking

Six tankers, two Air Attack Aircraft and one administrative airplane on paved areas. (No in the dirt parking)

Facility:

Located near departure end of favored runway
Appropriate accommodations for dispatch, retardant crews, air attack personnel and pilots. Refer to design of Fresno and Porterville buildings/floor plans
Jet and Avgas fuel available

County use plan must protect flight traffic area for at least next twenty years.

Safety of Flight

Airport

Minimum of Class D airspace if facility has more than 50,000 annual operations and/or intersecting runways
Minimum level A crash rescue equipment or equivalent available
No major airline activity. (Commuter service only)

March/Hemet-Ryan Comparison

Below is an evaluation of how the two facilities currently comply with the airbase criteria.

1. **Security**
    a. Hemet currently does not meet Federal Standards for Excess Property.
    b. March was until recently an active Air Force base and is currently a Reserve Air Force Base with full security protection in place

2. **Infrastructure**
    a. Hemet currently meets only one of the infrastructure requirements.
        i. The runway is only 4314 feet long
        ii. The runway is wide enough
        iii. There currently is no room for the required retardant pit area
        iv. There currently is no room for extra parking
    b. March currently meets several of the criteria
        i. The runway is 13,300 feet long.
        ii. The runway is 200 feet wide
        iii. The runways and taxi ways are capable of handling all CDF and US Forest service aircraft
        iv. There is sufficient room for retardant pits
        v. There is sufficient room for parking areas
        vi. The proposed facility is adjacent to the active runway

3. **Safety of flight**
    a. Hemet is an uncontrolled airport. The class E airspace (Controlled Airspace) begins 700 feet above the ground. Aircraft can depart under visual rules when they can stay clear of clouds and have at least one mile visibility. However, once airborne, and climb above 700 feet, they must maintain Class E cloud clearance requirements. (500 below the clouds, 1000 feet above and 2000 feet horizontal clearance. Radar services are available from March Ground Control once airborne, but since the controlled airspace does not start at the surface, Special VFR operations may not be conducted. (See attachment A for Special VFR Rules)
    b. There are non-precision IFR approaches available into Hemet. (Horizontal guidance, but no vertical guidance, minimum approach altitude is 848 feet Above the ground and one mile visibility)
    c. Last year there were over 80,000 flight operations at Hemet. These operation included CDF operations, student pilot training, glider flights, helicopter flights and other general aviations activities. Being that this is an uncontrolled airport, there is no communication requirement.
    d. There is no crash rescue service available at Hemet

e. March is in Class C airspace. There is an operational control tower and radar approach control services. Special VFR operations are authorized and radar separation is provided. Two way radio communications are required to operate in the airspace.

According to several Federal Aviation Administration and National Transportation Safety Board studies, operation at uncontrolled airports is not as safe as similar operations at airports in controlled airspace. The Aeronautical Information Manual in Section three states that; " Increased congestion, aircraft in climb and descent attitudes and pilot preoccupation with cockpit procedures are some factors that increase the hazardous accident potential near the airport. The situation is further compounded when the weather is marginal."

It seems obvious that a controlled environment augmented by radar coverage would provide a greater safety margin

f. There are precision IFR approaches available into March. (Minimum altitude on approach is 200 feet Above the Ground)
g. Last year there were 33,500 operations at March. The majority of the operations were either commercial freight operations or military flights. Passenger services are not currently offered at March.
h. March has crash rescue service available on site.

In a recent report to CDF comparing the two facilities, there was discussion about the restriction to activity at March based on weather below basic VFR minimums. However, the actual weather data indicates that weather at March and Hemet is nearly the same. March is actually above basic VFR 2% of the time more often than Hemet. (See attachment B) This coupled with the fact that Special VFR flights are authorized at March makes it more likely a flight can be completed safely when the weather is marginal.

Considering the comparison of how the two airports meet the airbase criteria, it is apparent that currently March ARB is a better choice. Even after considerable improvements to the facilities at Hemet, the airspace issue would still favor March.

Safety is the driving factor for all of CDF aircraft operations. When the opportunity is available to improve the level of safety there is no other appropriate course of action.

Attachment A

91.157 Special VFR weather minimums.
(a) Except as provided in appendix D, section 3, of this part, special VFR operations may be conducted under the weather minimums and requirements of this section, instead of those contained in § 91.155, below 10,000 feet MSL within the airspace contained by the upward extension of the lateral boundaries of the controlled airspace designated to the surface for an airport.
(b) Special VFR operations may only be conducted -
(1) With an ATC clearance;
(2) Clear of clouds;
(3) Except for helicopters, when flight visibility is at least 1 statute mile; and
(4) Except for helicopters, between sunrise and sunset (or in Alaska, when the sun is 6° or more below the horizon) unless -
(i) The person being granted the ATC clearance meets the applicable requirements for instrument flight under part 61 of this chapter; and
(ii) The aircraft is equipped as required in § 91.205(d).
(c) No person may take off or land an aircraft (other than a helicopter) under special VFR -
(1) Unless ground visibility is at least 1 statute mile; or
(2) If ground visibility is not reported, unless flight visibility is at least 1 statute mile. For the purposes of this paragraph, the term flight visibility includes the visibility from the cockpit of an aircraft in takeoff position if:
(i) The flight is conducted under this part 91; and
(ii) The airport at which the aircraft is located is a satellite airport that does not have weather reporting capabilities.
(d) The determination of visibility by a pilot in accordance with paragraph (c)(2) of this section is not an official weather report or an official ground visibility report.

From The AIM

4-4-5. SPECIAL VFR CLEARANCES
a. An ATC clearance must be obtained prior to operating within a Class B, Class C, Class D or Class E surface area when the weather is less than that required for VFR flight. A VFR pilot may request and be given a clearance to enter, leave, or operate within most Class D and Class E surface areas and some Class B and Class C surface areas in Special VFR conditions, traffic permitting, and providing such flight will not delay IFR operations. All Special VFR flights must remain clear of clouds. The visibility requirements for Special VFR aircraft (other than helicopters) are:

1. At least 1 statute mile flight visibility for operations within Class B, Class C, Class D and Class E surface areas.

2. At least 1 statute mile ground visibility if taking off or landing. If ground visibility is not reported at that airport, the flight visibility must be at least 1 statute mile.

3. The restrictions in subparagraphs 1. and 2. do not apply to helicopters. Helicopters must remain clear of clouds and may operate in Class B, Class C, Class D and Class E surface areas with less than 1 statute mile visibility.

b. When a control tower is located within the Class B, Class C, or Class D surface area, requests for clearances should be to the tower. In a Class E surface area, a clearance may be obtained from the nearest tower, FSS, or center.

c. It is not necessary to file a complete flight plan with the request for clearance, but pilots should state their intentions in sufficient detail to permit ATC to fit their flight into the traffic flow. The clearance will not contain a specific altitude as the pilot must remain clear of clouds. The controller may require the pilot to fly at or below a certain altitude due to other traffic, but the altitude specified will permit flight at or above the minimum safe altitude. In addition, at radar locations, flights may be vectored if necessary for control purposes or on pilot request.

NOTE -

The pilot is responsible for obstacle or terrain clearance.

REFERENCE -

14 CFR Section 91.119.

d. Special VFR clearances are effective within Class B, Class C, Class D and Class E surface areas only. ATC does not provide separation after an aircraft leaves the Class B, Class C, Class D or Class E surface area on a Special VFR clearance.

e. Special VFR operations by fixed-wing aircraft are prohibited in some Class B and Class C surface areas due to the volume of IFR traffic. A list of these Class B and Class C surface areas is contained in 14 CFR Part 91, Appendix D, Section 3. They are also depicted on sectional aeronautical charts.

f. ATC provides separation between Special VFR flights and between these flights and other IFR flights.

g. Special VFR operations by fixed-wing aircraft are prohibited between sunset and sunrise unless the pilot is instrument rated and the aircraft is equipped for IFR flight.

h. Pilots arriving or departing an uncontrolled airport that has automated weather broadcast capability (ASOS/AWOS) should monitor the broadcast frequency, advise the controller that they have the "one-minute weather" and state intentions prior to operating within the Class B, Class

Attachment B

Hemet Weather 2004 (Sunrise to Sunset)

May 0600-1930	June 0540-1930	July 0545-1955	Aug 0610-1930	Sept 0630-1900	Oct 0655-1815	Nov 0615-1645
1	1 VFR	1 MISSING	1 VFR	1 VFR	1 VFR	1 VFR
2	2 VFR	2 VFR	2 IFR 3+10	2 VFR	2 VFR	2 VFR
3	3 VFR	3 IFR 0+50	3 IFR 5+30	3 VFR	3 IFR 4+00	3 VFR
4	4 VFR	4 VFR	4 IFR 1+10	4 VFR	4 VFR	4 VFR
5	5 VFR	5 IFR 1+35	5 IFR 4+50	5 VFR	5 VFR	5 VFR
6	6 IFR 0+30	6 IFR 4+15	6 VFR	6 VFR	6 VFR	6 VFR
7	7 IFR 6+30	7 IFR 2+55	7 VFR	7 VFR	7 VFR	7 VFR
8	8 IFR 3+20	8 IFR 3+30	8 VFR	8 VFR	8 VFR	8 IFR 1+20
9	9 VFR	9 IFR 1+55	9 VFR	9 VFR	9 VFR	9 VFR
10	10 VFR	10 IFR 2+05	10 VFR	10 VFR	10 VFR	10 IFR 7+20
11	11 VFR	11 IFR 3+50	11 VFR	11 VFR	11 VFR	11 IFR 8+35
12	12 VFR	12 IFR 6+45	12 VFR	12 VFR	12 IFR 0+50	12 IFR 3+15
13 VFR	13 IFR 2+20	13 IFR 6+35	13 VFR	13 IFR 1+40	13 IFR 9+40	13 VFR
14 VFR	14 VFR	14 VFR	14 VFR	14 IFR 0+50	14 IFR 2+00	14 VFR
15 VFR	15 VFR	15 VFR	15 VFR	15 IFR 4+10	15 VFR	15 VFR
16 VFR	16 VFR	16 VFR	16 VFR	16 IFR 8+20	16 IFR 7+00	16 VFR
17 IFR 0+30	17 IFR 2+00	17 VFR	17 VFR	17 IFR 7+50	17 IFR 1+30	17 VFR
18 VFR	18 IFR 7+10	18 VFR	18 VFR	18 IFR 7+40	18 IFR 3+10	18 VFR
19 IFR 2+30	19 IFR 4+50	19 VFR	19 VFR	19 VFR	19 VFR	19 VFR
20 VFR	20 IFR 8+40	20 VFR	20 VFR	20 VFR	20 IFR 3+05	20 IFR 5+10
21 VFR	21 IFR 5+20	21 VFR	21 IFR 7+00	21 VFR	21 IFR 1+20	21 VFR
22 VFR	22 MISSING	22 VFR	22 IFR 4+10	22 VFR	22 VFR	22 VFR
23 VFR	23 MISSING	23 IFR 0+30	23 IFR 4+00	23 VFR	23 VFR	23 VFR
24 VFR	24 IFR 4+00	24 VFR	24 VFR	24 VFR	24 IFR 7+50	24 IFR 1+10
25 VFR	25 IFR 1+40	25 VFR	25 VFR	25 VFR	25 IFR 3+00	25 VFR
26 VFR	26 IFR 2+20	26 VFR	26 IFR 2+20	26 VFR	26 VFR	26 VFR
27 VFR	27 IFR 2+40	27 VFR	27 IFR 6+40	27 VFR	27 IFR 1+10	27 VFR
28 IFR 8+20	28 IFR 2+40	28 IFR 2+20	28 VFR	28 IFR 4+50	28 VFR	28 VFR
29 IFR 8+10	29 VFR	29 VFR	29 VFR	29 VFR	29 VFR	29 VFR
30 VFR	30 VFR	30 VFR	30 VFR	30 VFR	30 VFR	30 VFR

31 VFR	31	31 VFR	31 VFR	31	31 VFR	31
IFR 19+30	IFR 54+00	IFR 32+40	IFR 37+40	IFR 35+20	IFR 45+30	IFR 26+50

Total hours May-Nov 2004 2744
Total IFR hours 251+30
% Hours IFR 9.16%

March Weather Sunrise to Sunset

May 0600-1930	June 0540-1930	July 0545-1955	Aug 0610-1930	Sept 0630-1900	Oct 0655-1815	Nov 0615-1645
1	1 VFR	1 VFR	1 IFR 3+05	1 VFR	1 IFR 0+41	1 VFR
2	2 VFR	2 VFR	2 IFR 3+25	2 VFR	2 VFR	2 VFR
3	3 IFR 2+46	3 IFR 5+48	3 IFR 5+30	3 VFR	3 IFR 2+29	3 VFR
4	4 VFR	4 IFR 2+14	4 VFR	4 VFR	4 IFR 1+44	4 VFR
5	5 IFR 2+42	5 IFR 4+33	5 IFR 2+45	5 VFR	5 IFR 2+00	5 VFR
6	6 IFR 2+35	6 IFR 3+25	6 VFR	6 VFR	6 VFR	6 VFR
7	7 IFR 3+55	7 VFR	7 VFR	7 VFR	7 VFR	7 VFR
8	8 VFR	8 IFR 4+10	8 VFR	8 VFR	8 VFR	8 VFR
9	9 VFR	9 IFR 3+10	9 VFR	9 VFR	9 VFR	9 IFR 0+31
10	10 VFR	10 VFR	10 VFR	10 VFR	10 VFR	10 IFR 0+31
11	11 VFR	11 VFR	11 VFR	11 VFR	11 VFR	11 VFR
12	12 IFR 1+11	12 VFR	12 VFR	12 VFR	12 VFR	12 IFR3+11
13 VFR	13 VFR	13 VFR	13 VFR	13 IFR 2+35	13 IFR 3+00	13 VFR
14 VFR	14 VFR	14 VFR	14 VFR	14 VFR	14 VFR	14 VFR
15 VFR	15 IFR 3+51	15 VFR	15 VFR	15 IFR 4+49	15 VFR	15 VFR
16 VFR	16 IFR 4+35	16 VFR	16 VFR	16 IFR 4+47	16 IFR 1+34	16 VFR
17 VFR	17 IFR 4+35	17 VFR	17 VFR	17 IFR 4+03	17 VFR	17 VFR
18 VFR	18 IFR 4+31	18 VFR	18 VFR	18 IFR 3+40	18 VFR	18 VFR
19 IFR 55 MIN	19 IFR 5+02	19 VFR	19 VFR	19 VFR	19 IFR 3+48	19 VFR
20 VFR	20 IFR 4+25	20 VFR	20 VFR	20 VFR	20 IFR 3+02	20 IFR 3+07
21 VFR	21 IFR 6+21	21 VFR	21 IFR 3+45	21 VFR	21 VFR	21 VFR
22 VFR	22 IFR 8+35	22 VFR	22 IFR 3+46	22 VFR	22 VFR	22 VFR
23 VFR	23 IFR 5+13	23 IFR 2+38	23 IFR 3+49	23 VFR	23 VFR	23 VFR
24 VFR	24 IFR 4+37	24 VFR	24 VFR	24 VFR	24 IFR 4+26	24 IFR 2+11
25 VFR	25 IFR 3+00	25 VFR	25 VFR	25 VFR	25 VFR	25 VFR
26 VFR	26 IFR	26 VFR	26 IFR2+10	26 VFR	26 VFR	26 IFR 1+52

	2+22					
27 VFR	27 VFR	27 VFR	27 IFR 2+59	27 VFR	27 IFR 2+01	27 IFR 8+21
28 IFR 4+19	28 VFR	28 VFR	28 IFR 0+23	28 IFR 4+25	28 VFR	28 VFR
29 VFR	29 VFR	29 VFR	29 VFR	29 VFR	29 IFR 1+20	29 VFR
30 VFR	30 VFR	30 VFR	30 VFR	30 VFR	30 VFR	30 VFR
31	31	31 VFR	31 VFR	31	31 VFR	31
5+33	69+44	25+58	31+45	24+19	26+05	19+53

Total hours May-Nov 2004	2744
Total IFR Hours	203+17
% hours IFR	7.4%

Conclusion: March was VFR 92.6% of the daylight hours during the period, Hemet was VFR 90.8%.

Security Checklist
(USFS FEPP required)

Facility Access and Protection

Revised June 8, 2005

Fencing

- Minimum 6' chain link fence (existing) at permanent air tanker facilities, (8' new)
- Fencing must meet or exceed the requirements specified within the FAA approved airport security plan

Lighting

- Minimum of 3 foot candles of site lighting at permanent facilities while facility is active; lighting should cover ramp and all tank storage areas

Signage

- "NO TRESPASSING" or similar signs posted in prominent locations surrounding perimeter of facility
- Areas with restricted access should have appropriate signs posted
- Building exits that lead to restricted areas should be signed accordingly
- Signs should be multi-lingual in appropriate locations

Lock and key control

- Facility must utilize a "key control" system
  - Number of keys available must be limited
  - Keys may not be duplicated without approval
  - Excess keys must be located in secure and locked location

Facility Access

- Security plan must identify any areas of facility that are "Restricted"
- Identification system must be used for areas of facility deemed "Restricted"
  - Color coded shirts, hats, jackets, etc.
  - ID badges
  - Other technique
  - A government employee will escort those without background checks

Parking

- Access to parking in sensitive areas of facility must be limited and controlled
  - ID check
  - ID badge/ ID card
  - Security guard
  - Other procedure

Accessibility of retardant and bulk fuel tanks, pumps and tank valves

- Retardant tanks, pumps and valves that could be used to drain tanks must have a positive locking mechanism and/or tamper proof/tamper evident seals
- Fuel bulk storage tanks, pumps and valves that could be used to drain tanks must have a positive locking mechanism and/or tamper proof/tamper evident seals
- Security plan must specify pre-use inspection procedures

Surveillance, monitoring and site supervision

- Security plan must specify the level and type of surveillance and monitoring provided
    - Facility personnel, private security, FS law enforcement, local law enforcement, national guard, etc.
- Facilities used to respond to type II and larger incidents will provide security 24/7

Guests/visitors/personnel

- Restricted area access
    - Background checks completed for all personnel that have full access to restricted areas – contractors and part-time government employees
    - A government employee will escort those without background checks
- Verify and document identification information for all guests and visitors
    - Check and document information
        - Signature/initials of who verified information
        - Date and time of visit
- Supervision provided for all visitors while at facility

Security plan

At a minimum, every security plan will address the following items:

- Security plan must specify the responsibility of the base manager and other personnel for all aspects of security
    - Base Manager responsibilities
        - Provide or coordinate training for all personnel on security plan
        - Ensure that all transient aircraft are met by base personnel
- Contact information for local law enforcement, fire response and hazardous materials personnel
- Plan must identify what areas of facility are “Restricted”
- Plan must identify what tamper proof/tamper-evident seals and or/locking mechanisms will be utilized for retardants, bulk fuel tanks, chemicals and hazardous materials
- Plan must address the following procedures
    - Preflight security procedures/checks
    - Aircraft theft and hijacking response procedures
    - Aircraft ramp procedures
    - Aircraft hangar procedures (if applicable)
    - Security breach response procedures
    - Incident reporting protocol
    - Challenge procedures for unauthorized personnel
    - Emergency contact names and contact information

    - Pre-use inspection procedures for any retardants, chemicals and hazardous materials
- Plan must identify any areas of facility that are “Restricted”
    - Identify whether fixed-wing or rotor-wing parking is “Restricted”
    - Specify identification system used for “Restricted” areas
        - Color coded shirts, hats, jackets, etc.
        - ID badges
        - Other technique
- Plan must ensure information protection
    - Ensure protection of security codes
    - Specify intervals to change/update security codes

Physical security measures

- Lock aircraft
- Aircraft shall be secured in locked hangar where available

Materials Handling (Retardant, petroleum products, fuels, chemicals, agricultural products, etc)

- Pre-delivery/off-site:
    - Ensure secure chain-of-custody of materials
- Materials storage:
    - Utilize tamper-proof/tamper-evident seals and/or locks
    - Distribution of hazardous materials monitored by authorized persons